

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior versions of the claims.

1. (Currently Amended) A fuel injection valve comprising a valve assembly (14) having a valve portion (16); a valve seat member (3) having provided therein a conical valve seat (8) and a valve seat hole (7), the valve seat (8) cooperating with the valve portion (16), and the valve seat hole (7) communicating with the a downstream end of the valve seat (8); an injector plate (10), the injector plate (10) being joined to the valve seat member (3); a radially extending and flat annular fuel diffusion chamber (43), the fuel diffusion chamber (43) being formed between the valve seat member (3) and the injector plate (10), and the a downstream end of the valve seat hole (7) opening in a central part of the fuel diffusion chamber (43); and a plurality of fuel injection holes (11), the fuel injection holes (11) being bored in the injector plate (10) so as to be radially outwardly separated from the valve seat hole and open in to an inside of the fuel diffusion chamber (43);

characterized in that wherein an annular depression is formed in the valve seat member between the downstream end of the valve seat and an upstream end of the valve seat hole so as to provide a connection therebetween, a fuel collecting chamber is defined by the depression and a front end face of the valve portion of the valve assembly, and the fuel collecting chamber has a base of conical shape,

wherein the fuel injection holes (11) are arranged so as to be radially outwardly separated from the valve seat hole (7) is formed such that, and when the

height of the fuel diffusion chamber (43) is t_1 and the length of the valve seat hole (7) is t_2 , $t_2/t_1 \geq 2$, thereby straightening a flow of fuel from the fuel collecting chamber,

wherein an annular corner is formed to connect between the base of the fuel collecting chamber and an inner peripheral face of the valve seat hole, said annular corner having a tapered or arc-shaped chamfer, and

further wherein the fuel diffusion chamber is defined by an annular depression formed in a front end face of the valve seat member such that, the height of a section of the fuel diffusion chamber (43) that the fuel injection holes (44) face is 20 to 110 μm to make the fuel diffusion chamber flat and thin relative to the length of the valve seat hole so that the flow of fuel spreads radially at high speed in film form in the fuel diffusion chamber and is detached from an inner peripheral wall of the fuel injection holes.

2-7. (Cancelled)

8. (New) The fuel injection valve according to Claim 1, wherein a corner is formed to connect between a top face of the fuel diffusion chamber and the inner peripheral face of the valve seat hole, said corner being given a tapered or arc-shaped chamfer.